

CLASSES ARRANGED BY ART UNIT

II-52

Class Title			Subclass Ranges	
			From	To
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Art Unit	3728			

Class	12	BOOT AND SHOE MAKING	ALL	
Class	36	BOOTS, SHOES, AND LEGGINGS	ALL	
Class	206	SPECIAL RECEPTACLE OR PACKAGE	.5	6.1
			14	277
			300	315.11
			315.9	500
			521	521.1
			521.2	FOR 000
Art Unit	3729			

Class	29	METAL WORKING	25.35	25.42
			592.1	623
			729	
			732	764
			825	887
			890.01	
			FOR 000	
Art Unit	3731			

Class	606	SURGERY	138	236
Class	623	PROSTHESIS (I.E., ARTIFICIAL BODY MEMBERS), PARTS THEREOF, OR AIDS AND ACCESSORIES THEREFOR	1.11	1.22
Art Unit	3732			

Class	132	TOILET	ALL	
Class	433	DENTISTRY	ALL	
Class	600	SURGERY	201	249
Class	606	SURGERY	53	137
Class	623	PROSTHESIS (I.E., ARTIFICIAL BODY MEMBERS), PARTS THEREOF, OR AIDS AND ACCESSORIES THEREFOR	16.11	23.63
Art Unit	3736			

Class	128	SURGERY	897	

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(FILE 'HOME' ENTERED AT 12:10:24 ON 15 MAY 2003)

FILE 'BIOSES' ENTERED AT 12:10:35 ON 15 MAY 2003

L1	229 S ERYTHROPHORE
L2	2089 S MELANOPHORE
L3	2404 S CHROMATOPHORE
L4	72 S L1 (L) L2
L5	3 S BETTA (L) L3
L6	12326 S CALCIUM CHANNEL BLOCKER
L7	0 S L6 AND L4
L8	4 S L4 AND CALCIUM
L9	3 S ENCAPSULAT#### AND L3

CLASSES ARRANGED BY ART UNIT

II-53

			Subclass Ranges	
Class Title			From	To
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Art Unit	3737			

Class	128	SURGERY	915	916
			920	925
			200	FOR 000
Class	351	OPTICS: EYE EXAMINING, VISION TESTING AND CORRECTING	407	480
Class	600	SURGERY	2	4
Class	601	SURGERY: KINESITHERAPY		
Art Unit	3738			

Class	128	SURGERY	898	
			1.1	
Class	623	PROSTHESIS (I.E., ARTIFICIAL BODY MEMBERS), PARTS THEREOF, OR AIDS AND ACCESSORIES THEREFOR	1.23	15.12
			23.64	FOR 119
Art Unit	3739			

Class	600	SURGERY	101	200
			388	397
			920	FOR 000
Class	606	SURGERY	1	52
Class	607	SURGERY: LIGHT, THERMAL, AND ELECTRICAL APPLICATION	96	114
Art Unit	3742			

Class	219	ELECTRIC HEATING	121.36	121.59
			200	FOR 000
Class	373	INDUSTRIAL ELECTRIC HEATING FURNACES	ALL	
Class	392	ELECTRIC RESISTANCE HEATING DEVICES	ALL	
Art Unit	3743			

Class	126	STOVES AND FURNACES	ALL	
Class	165	HEAT EXCHANGE	ALL	
Class	431	COMBUSTION	ALL	
Art Unit	3744			

Class	62	REFRIGERATION	ALL	

WEST Search History

DATE: Thursday, May 15, 2003

Set Name Query

side by side

Hit Count Set Name

result set

DB=USPT,PGPB,JPAB,EPAB,DWPI; THES=ASSIGNEE; PLUR=YES;

OP=ADJ

L17	erythrophore	14	L17
L16	erythrophore and melanophore	2	L16
L15	L14 and l7	7	L15
L14	calcium near channel near blocker	3428	L14
L13	clacium near channel near blocker	1	L13
L12	l7 and l9	0	L12
L11	l9 and (screenS3 or assay)	52	L11
L10	L9 and l1	0	L10
L9	betta	334	L9
L8	L7 and (fish or fishes or pisces or betta or belontiidae or ctenopinae or labyrinth)	167	L8
L7	l1 or melanophore or erythrophore	431	L7
L6	pisces and l1	2	L6
L5	L4 and (melanophore or erythrophore)	1	L5
L4	(betta or belontiidae or ctenopinae or labyrinth)	18537	L4
L3	L1 and (betta or belontiidae or ctenopinae or labyrinth)	0	L3
L2	L1 and (betta or belontiidae or ctenopinae)	0	L2
L1	chromatophore	100	L1

END OF SEARCH HISTORY

CLASSES ARRANGED BY ART UNIT

II-54

			Subclass Ranges	
Class Title			From	To

Art Unit	3745			

Class	60	POWER PLANTS	325	494
			532	594
Class	91	MOTORS: EXPANSIBLE CHAMBER TYPE	1	471
			508	DIG 4
Class	92	EXPANSIBLE CHAMBER DEVICES	ALL	
Class	415	ROTARY KINETIC FLUID MOTORS OR PUMPS	ALL	
Class	416	FLUID REACTION SURFACES (I.E., IMPELLERS)	ALL	
Art Unit	3746			

Class	60	POWER PLANTS	39.01	269
			722	917
			FOR 100	FOR 118
Class	91	MOTORS: EXPANSIBLE CHAMBER TYPE	472	507
			FOR 000	
Class	239	FLUID SPRINKLING, SPRAYING, AND DIFFUSING	127.1	127.3
			265.11	265.43
Class	417	PUMPS	ALL	
Class	418	ROTARY EXPANSIBLE CHAMBER DEVICES	164	
Art Unit	3747			

Class	123	INTERNAL-COMBUSTION ENGINES	1 A	3
			142.5 E	198.0D C
			19	42
			250	558
			46 A	89
			567	DIG 13
			FOR 100	FOR 128
Class	701	DATA PROCESSING: VEHICLES, NAVIGATION, AND RELATIVE LOCATION	101	115
			FOR 000	
Art Unit	3748			

Class	60	POWER PLANTS	272	324

L8 ANSWER 1 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 1994:154135 BIOSIS
 DN PREV199497167135
 TI Intracellular **calcium** and cAMP regulate directional pigment movements in teleost erythrophores.
 AU Kotz, Kimberly J.; McNiven, Mark A. (1)
 CS (1) Guggenheim 17, Mayo Clinic, 200 1st St., SW, Rochester, MN 55905 USA
 SO Journal of Cell Biology, (1994) Vol. 124, No. 4, pp. 463-474.
 ISSN: 0021-9525.
 DT Article
 LA English
 AB Teleost pigment cells (**erythrophores** and **melanophores**) are useful models for studying the regulation of rapid, microtubule-dependent organelle transport. Previous studies suggest that **melanophores** regulate the direction of pigment movements via changes in intracellular cAMP (Rozdzial and Haimo, 1986a; Sammak et al., 1992), whereas **erythrophores** may use **calcium**- (Ca-2+ -) based regulation (Luby-Phelps and Porter, 1982; McNiven and Ward, 1988). Despite these observations, there have been no direct measurements in intact **erythrophores** or any cell type correlating changes of intracellular free Ca-2+ ($(\text{Ca-2+})\text{-i}$) with organelle movements. Here we demonstrate that extracellular Ca-2+ is necessary and that a Ca-2+ influx via microinjection is sufficient to induce pigment aggregation in **erythrophores**, but not **melanophores** of squirrel fish. Using the Ca-2+ -sensitive indicator, Fura-2, we demonstrate that $(\text{Ca-2+})\text{-i}$ rises dramatically concomitant with aggregation of pigment granules in **erythrophores**, but not **melanophores**. In addition, we find that an **erythrophore** stimulated to aggregate pigment will immediately transmit a rise in $(\text{Ca-2+})\text{-i}$ to neighboring cells, suggesting that these cells are electrically coupled. Surprisingly, we find that a fall in $(\text{Ca-2+})\text{-i}$ is not sufficient to induce pigment dispersion in **erythrophores**, contrary to the findings obtained with the ionophore and lysed-cell models (Luby-Phelps and Porter, 1982; McNiven and Ward, 1988). We find that a rise in intracellular cAMP ($(\text{cAMP})\text{-i}$) induces pigment dispersion, and that this dispersive stimulus can be overridden by an aggregation stimulus, suggesting that both high $(\text{cAMP})\text{-i}$ and low $(\text{Ca-2+})\text{-i}$ are necessary to produce pigment dispersion in **erythrophores**.